HEMISPHERICALLY-COATED SOLID GLASS MICROSPHERES

1. IDENTIFICATION OF SUBSTANCE

1.1 PRODUCT NAME(S)  Hemispherically-Coated Solid Glass Microspheres
1.2 PRODUCT IDENTIFIER(S)  HCMS-BSGMS, HCMS-BTGMS, HCMS-SLGMS
1.3 INTENDED USE  Industrial and research applications
1.4 SUPPLIER’S DETAILS  Cospheric LLC, PO Box 6762, Santa Barbara, CA 93160
                        info@cospheric.com  www.cospheric.com
1.5 EMERGENCY TELEPHONE  +1-805-687-3747 Monday-Friday, 08:00-17:00 PST [UTC-8]

2. HAZARDS IDENTIFICATION

2.1 HAZARD CLASSIFICATION  Not classified as a hazardous material.
2.2 LABEL ELEMENTS  None.
2.3 HAZARDS NOT OTHERWISE CLASSIFIED  Spilled material is extremely slippery. Dust may cause irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NUMBER</th>
<th>% (W/W)</th>
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</thead>
<tbody>
<tr>
<td>Glass oxide microspheres</td>
<td>308066-94-6</td>
<td>&gt;80%</td>
</tr>
<tr>
<td>Proprietary coating</td>
<td>Trade Secret</td>
<td>&lt;20%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

Eye contact  Rinse with plenty of water. Seek medical advice if symptoms persist.
Skin contact  If symptoms occur, wash with soap and water.
Inhalation  If symptoms occur, move to fresh air. Seek medical advice if necessary.
Ingestion  If symptoms occur, seek medical advice.

4.2 IMPORTANT SYMPTOMS/EFFECTS, ACUTE OR DELAYED

Inhalation of high concentrations of dust may cause respiratory irritation.

5. FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Use extinguishing measures that are appropriate to local circumstances and the surrounding fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

None known.

5.3 SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved) and full protective gear.

6. ACCIDENTIAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES
Follow precautions for safe handling described in this safety data sheet (Section 8).

6.2 ENVIRONMENTAL PRECAUTIONS
Dispose of any waste according to prescribed federal, state, local and competent authority guidelines.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEAN UP
Collect spillage with shovel, broom or the like. Transfer to a container for disposal.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING
Avoid handling practices that cause dust formation. Avoid inhalation of high concentrations of dust. Observe occupational exposure limits and minimize the risk of inhalation of dust.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES
Store in tightly closed original container in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS
This product is not a hazardous material. The exposure limit for nuisance dust is referenced.
Nuisance Dust (Particles Not Otherwise Regulated)
OSHA Permissible Exposure Limit (PEL) Respirable fraction 5mg/m³ Total dust 15mg/m³

8.2 ENGINEERING CONTROLS
Avoid handling practices that cause dust formation. Use local exhaust ventilation to prevent or control exposure.

8.3 INDIVIDUAL PROTECTION MEASURES (PERSONAL PROTECTIVE EQUIPMENT)
Respiratory protection: When handling practices cause dust formation, select respiratory protection appropriate for the particle size of the material.
Eye/face protection: Chemical goggles.
Skin protection: Wear suitable protective clothing and gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES
Appearance: Solid spherical particles
Relative density: Per product specification (~2-5g/cc)
Softening Temperature: Per product specification
Flammability: Not classified as flammable.
Flammable limits: Not-applicable
Auto-ignition temperature: Not-applicable
Decomposition temperature: No information available
Odor: Odorless
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Vapor pressure  Not-applicable
Vapor density  Not-applicable
pH  Not-applicable
Melting point  Not-applicable
Solubility in water  Insoluble
Initial boiling point  Not-applicable
Flash point  Not-applicable
Evaporation rate  Not-applicable
Partition coefficient  Not-applicable
Viscosity  Not-applicable

10. STABILITY AND REACTIVITY
Reactivity  Non-reactive under normal conditions of use.
Chemical stability  Stable under normal conditions of use.

11. TOXICOLOGICAL INFORMATION
Likely route(s) of exposure  Dermal, inhalation

SIGNS AND SYMPTOMS OF EXPOSURE
Eye contact  Direct contact with eyes may cause temporary mechanical irritation. Signs and symptoms may include pain, redness.
Skin contact  Direct contact with skin may cause sensitization in hypersensitive individuals. Signs and symptoms may include redness, pain and itching.
Inhalation  Inhalation above recommended exposure levels may cause respiratory irritation including cough.
Ingestion  No harmful effects expected in amounts likely to be ingested by accident. May cause discomfort if swallowed.

TOXICOLOGICAL DATA
Acute toxicity  No information available/not sufficient for classification
Skin corrosion/irritation  No information available/not sufficient for classification
Serious eye damage/eye irritation  No information available/not sufficient for classification
Respiratory or skin sensitization  No information available/not sufficient for classification
Germ cell mutagenicity  No information available/not sufficient for classification
Carcinogenicity  Not listed as a carcinogen (OSHA, NTP, IARC)
Reproductive toxicity  No information available/not sufficient for classification
STOT-single exposure  No information available/not sufficient for classification
STOT-repeated exposure  No information available/not sufficient for classification
Aspiration hazard  No information available/not sufficient for classification
12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Information Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity</td>
<td>No information available</td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>No information available</td>
</tr>
<tr>
<td>Bioaccumulation potential</td>
<td>No information available</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td>No information available</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Dispose of any waste according to prescribed federal, state, local and competent authority guidelines.

14. TRANSPORTATION INFORMATION

This product is not subject to regulations for the transport of hazardous materials (DOT, IATA, IMO).

15. REGULATORY INFORMATION

This SDS has been prepared to meet the US OHSA Hazard Communication Standard, 29 CFR 1910.1200.

16. OTHER INFORMATION

The information contained in this document is correct to the best of our knowledge at the date of publication. It should not be viewed as all inclusive, but as a guide only. It does not represent any guarantee of the properties of the product. Cospheric LLC shall not be held liable for any damage resulting from handling of or from contact with the above product. For these reasons, it is important that product users carry out their own tests to satisfy themselves as to the suitability of the safety precautions for their own intended applications.

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